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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,831	12/21/2004	Louis Montagne	FR 020053	9881

24737 7590 03/30/2006

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BRIARCLIFF MANOR, NY 10510

EXAMINER

LEE, JOHN D

ART UNIT	PAPER NUMBER
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2874

DATE MAILED: 03/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	10/518,831	MONTAGNE, LOUIS	
	Examiner	Art Unit	
	John D. Lee	2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

This Office action is responsive to applicant's communication submitted with a Certificate of Mailing dated February 1, 2006.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 5,607,229 to Rykowski et al. Rykowski et al discloses a luminaire comprising a multi-sectored light-directing element having a light emission window for directing light from an electric light source to a system which employs the light (a display system, a projection system, automobile headlights, etc.). The shape of the Rykowski et al multi-sectored light-directing element is composed of n solids of revolution of "single circularly symmetric shape" forming an integral surface, the shape being calculated to take into account that the light source may be voluminous (i.e. has a large circular cross-section). By definition, the solids of revolution of "single circularly symmetric shape" would include spheroids, ellipsoids, paraboloids, etc. Rykowski et al does not disclose that the light-directing element directs the light into an optical fiber system. Since, however, elliptical and parabolic light directing elements are commonly used for directing light into optical fibers, fiber bundles, and optical fiber-based systems, because of their mathematically precise light directing abilities, the person of ordinary skill in the art would have found it obvious to use the Rykowski et al multi-sectored light-directing element for directing light into an optical fiber system. It is also noted that the

claim language "*for directing light....into an optical fiber system*" does not constitute a structural limitation other than helping define the shape of the light-directing element. As just pointed out, the shape of the Rykowski et al light-directing element would obviously fulfill this requirement. As for the specifics of applicant's claim 3, applicant as much as admits (on pages 2 and 3 of the instant specification) that the relationships set forth in the claims are relatively simple and easy calculations for designing the adjoining sectors of the multi-sectored light-directing element. These mathematical relationships would thus have been obvious to a person of ordinary skill in the art. Claims 9 and 10 do not add any specific structural limitations, so that Rykowski et al is applicable to these claims as well. The "shaped housing" of claim 10 is not even defined, since a "saw-cut recess" is not a specific shape.

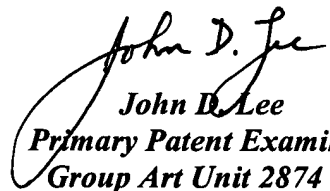
Applicant's arguments filed February 1, 2006, have been fully considered but they are not persuasive. Applicant disagrees with the Examiner's conclusion that it would have been obvious to use the Rykowski et al multi-sectored light-directing element for directing light into an optical fiber system, pointing out that the Rykowski et al output light fills non-circular apertures which are generally not applicable to optical fiber systems. This is not always the case, however, and therefore the argument fails. Take, for example, the situation wherein a rectangular optical fiber bundle (containing a very large number of optical fibers) is positioned at the output aperture of the Rykowski et al device (as in applicant's own claim 7). This situation is clearly encompassed by the myriad of uses alluded to in the reference, and would therefore have been obvious to the person of ordinary skill in the art. Applicant also argues that Rykowski et al does

not teach or disclose the characterizing portion of independent claim 1, namely, *"characterized in that said shape is calculated in accordance with a ray-tracing algorithm which takes into account that said light source to be accommodated is voluminous"*. Applicant asserts that Rykowski et al makes no association between the light source and the shape of the multi-sectored light-directing element. The Examiner respectfully disagrees with this assertion, and would like to point applicant to column 4, lines 19-26, of Rykowski et al. In this particular passage, Rykowski et al makes a very clear connection between the design of the shape of the multi-sectored light-directing element and particular types of light sources to be used, some of which light sources would be recognized by the ordinarily skilled artisan as being voluminous. Finally, applicant argues that the Rykowski et al design is limited to tilting and rotating various surface elements, whereas the claimed invention's design involves more global modifications of entire surface segments. The only claim language which this could possibly be related to is that of applicant's claim 3. Applicant, indeed, argues that this claim sets forth specific equations to define particular parabolic sectors. The Examiner, however, in the rejection above, has clearly indicated why these particular equations would have been obvious in the design of parabolic surface sections in the Rykowski et al multi-sectored light-directing element. Applicant has not specifically addressed the Examiner's reasoning in this argument, and the argument is thus not persuasive.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR§1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and an advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR§ 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning the merits of this communication should be directed to Examiner John D. Lee at telephone number (571) 272-2351. The Examiner's normal work schedule is Tuesday through Friday, 6:30 AM to 5:00 PM. Any inquiry of a general or clerical nature (i.e. a request for a missing form or paper, etc.) should be directed to the Technology Center 2800 receptionist at telephone number (571) 272-1562, to the technical support staff supervisor (Team 8) at telephone number (571) 272-1564, or to the Technology Center 2800 Customer Service Office at telephone number (571) 272-1626.


John D. Lee
Primary Patent Examiner
Group Art Unit 2874